

it has much influence, of an indirect nature, on the vital reactions. Our only wonder is that the almost universal employment of this powerful agent does not leave vestiges of its influence that are better known and recognized as signs of disease. This may be accounted for to some extent by the rapid cadaveric changes that occur in the nervous elements, thus obscuring or effacing diseased states before we have the opportunity of recognizing them.

All the classic writers attribute its full share of causation to tobacco as a source of amaurosis; yet I have not met many that are willing, individually, to allow that they have traced its influence. But it has often happened that the causes of disease are long unrecognized by many, after as full a proof has been made of their reality as possible. For instance, it is recorded of one of the causes of iritis (that every one now allows) that for many years it was not admitted by men of vast experience that any closer relation than that of coincidence existed between it and syphilis; yet so great has been the revulsion of opinion that some eminent men now seem to think it never occurs except in connection with that contamination.

I have selected the cases above sketched to illustrate this subject, because they seem to be as free from the unavoidable fallacies that encircle this subject as possible. Many have come under my notice in which I could not find any other cause to account for the conditions; but few so typical of the atrophy of the optic nerve, or so advanced. It is obviously desirable to cite well-marked cases. Many of those observed gradually merged into less definite conditions, and were only corroborative, rather than conclusive. Again, many were so fettered with other complications that I consider them inapposite for my present purpose. All the cases that have come under my observation have (as might probably be expected) been in males. It will be noticed that only one pathological condition was seen in these three cases—namely, that of white atrophy of the optic nerves. I am not prepared to assert that tobacco produces blindness in this way only; but in all my cases I have recognized this condition in a great or small degree.

I may anticipate that I shall be asked, How can it be that of the hundreds of thousands of smokers, only so small a proportion are affected by amaurosis? I should reply, first, that few probably smoke to such excess the strongest tobacco; in the second place, we are not yet in a position to recognize the smaller degrees of tobacco-disease; and thirdly, as Dr. Mackenzie has aptly observed, only one of five hundred shall become amaurotic, in whom a stronger predisposition to the disease had existed.

Secondary syphilis affects the retina, and leads to amaurosis; but of the thousands affected how few become blind!

Then it has been suggested that I ought to show that amaurosis is most common where smoking is most general. To this I reply, it is impossible so to estimate and proportion the other recognized causes of amaurosis so as to enable us to compare them with the effects of tobacco, and thence deduce any relation. But so far as probability warrants, I think there may be some conclusion to this purpose deduced from the greater frequency of atrophy of the optic nerves in men than in women (of which I suspect there is little doubt), though the other causes of amaurosis are more likely to affect the latter—for instance, needle work, &c.

Dr. Mackenzie, in his great work on Ophthalmology, expresses his belief that tobacco is a *frequent* cause of amaurosis, and adds that "one of the best proofs of tobacco being a cause of amaurosis is in the great improvement in vision—sometimes complete restoration—which ensues on giving up the use of this poison," and cites a very striking case in illustration. With him I agree also in the conviction that tobacco is a common cause of the cases of partial loss of sight that are daily to be found at our hospitals.—*Lancet*, July 25, 1863.

40. *Use of Tannin in Inflammatory Affections of the Conjunctiva.*—Mr. G. R. SHERATON submits (*Med. Times and Gaz.*, Sept. 12, 1863) his experience with the use of astringents and particularly tannin in the treatment of Ophthalmia, and maintains the superiority of local over the antiphlogistic treatment. But he justly admits that when the ophthalmia arises from constitutional causes,

the state of the constitution must be remedied, while then the local treatment is of secondary import. He thinks, however, that conjunctivitis generally results from local causes and demands local remedies.

"How often," he says, "have we seen the antiphlogistic treatment persevered in till the system has been drained of its blood, without producing the least beneficial effect, otherwise than relieving the coexisting symptomatic fever, with a succession of blisters only to increase the vexation and disappointment. If we look over the list of local remedies that have been successfully employed in the treatment of the ophthalmia, we will find them to be astringents, as plumb. acet., argent. nit., zinci sulph., etc., and that their beneficial results are in proportion to the amount of astringency which they possess.

"Astringents are also indicated on theoretical grounds, the *modus operandi* of which upon the living tissues is to a considerable extent mechanical by contracting the fibres and capillary vessels of the part to which they are applied, by which less fluid is admitted into them. But the astringents ordinarily in use, and derived from the mineral kingdom, are inadmissible during the acute stages, in consequence of the violent irritation they produce if applied directly to the membrane, except in a very ineffectual degree of dilution.

"On these grounds, then, I have been led to employ tannin, which is probably one of the most powerful astringents, whilst its comparative freedom from irritation renders it a safe and effectual remedy for the class of cases which I have proposed. The manner which I employ it is in the form of solution of tannin, 3j—3ij to aq. destil. 3j.

"A small portion of this is dropped into the eye, which at first causes a smarting sensation with a gush of tears, and which is succeeded by dryness and a feeling of comfort. This is to be repeated three, four, or a dozen times a day as circumstances require. The effect produced is soon made apparent; the distended capillaries seem to become unloaded of their stagnant contents, increased lachrymation and muco-purulent discharge, if present, is checked, the organ becomes more fitted to perform its office, and the dependent constitutional symptoms are mitigated and disappear. I have now treated a great number of cases most satisfactorily in this manner, without ever having had occasion to deviate from that course in the slightest degree when the result of external causes and unconnected with constitutional diathesis. Though chemosis when present seems to retard the progress somewhat, probably in consequence of the effused fluid for a time preventing its full constrictive influence upon the capillary vessels. Since I have been thoroughly convinced of the utility of tannin as a remedial agent in this class of cases, I have modified the mode of application to suit the exigencies of the various cases, *e. g.*, by its combination with some aqueous extract of a sedative drug, as solution of morphia, belladonna, opium, etc., to relieve the distressing pain, heat, and smarting that always to a greater or less extent accompany this disorder. I have also found it to be extremely useful during the acute stage of strumous, phlyctenular corneitis, removing the vascularity more expeditely than any other remedy that I have hitherto employed, and probably tending to contraction of the resulting ulcer, and by its combination with the aqueous solution of belladonna, etc., soothes and relieves the intolerance of light; though it has usually been my practice to employ the stimulating mode of treatment as soon as the fasciuli of vessels had disappeared. I have also been careful to secure a suitable regimen, and a dose of aperient medicine when such was deemed necessary."

41. *Ophthalmia produced by "Sulphuring" Vines.*—In the South of France, the operation there practised of dusting the vines with sulphur has produced a large number of cases of ophthalmia; and M. Bouisson has made on this subject a communication to the Academy of Sciences in Paris. The workmen attacked with this affection have the eyes red, lachrymose, and swollen; they feel a pricking pain, especially towards the middle of the day, when the heat, and the direct and reflected light of the sun are most intense. They complain of photophobia, and of pains radiating towards the forehead. This irritation is diminished by rest at night and by washing with cold water. But the irritation is reproduced by its cause; and its repetition soon brings on more or less intense ophthalmia,